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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,606	10/26/2001	Gyorgy Miklos	040001-086	2505

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EXAMINER
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JAMAL, ALEXANDER

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/039,606

Applicant(s)

MIKLOS ET AL.

Examiner

Alexander Jamal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-23 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2-6-2002, 8-26-2002  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-6,8-10,14-23** rejected under 35 U.S.C. 102(b) as being anticipated by Haartsen et al. (5940431).

As per **claim 1**, Haartsen discloses an ad-hoc communication system in which periodic windows are defined for the receiving system (Fig. 4, and also in Fig. 12) and the paging system (Fig. 5). Each of the periodic windows comprises a time point (defined by the particular frequency hop) that changes in a pseudo-random manner between windows (Col 4 lines 20-35). The paging unit initiates communication to the receiving unit.

As per **claim 16**, claim rejected for the same reasons as claim 1 rejection.

As per **claim 20**, claim rejected for the same reasons as claim 1 rejection. The system disclosed in claim 1 inherently comprises software for the purpose of controlling the hardware.

As per **claims 2,17,21**, once a page has been received, the receiving unit responds (via receiving means) (Col 9 lines 15-25).

As per **claim 3**, Haartsen discloses an embodiment in which the periodic windows are defined as 'page trains' that are used to group partial sets of frequency-hop pages (Col 6 line 65 to Col 7 line 25). Haartsen discloses that if the standby clock is known (from a previous communication), then the proper page train (window length) can be selected (Col 7 lines 48-56) (Col 8 lines 19-34).

As per **claims 4-6**, the time point positions are selected based upon the ID (node address) and free running clock of the receiving unit (Col 5 lines 1-20).

As per **claims 8,14**, the page message sent by the paging unit is an inquiry (page) message.

As per **claims 9,15**, the page message to the receiving device is an inquiry (page)message and the response back to the paging device is an inquiry (page) response message.

As per **claim 10**, claim rejected for the same reasons as claim 3 rejection. If prior information is known <sup>from</sup> ~~from~~ the receiving unit, then the paging unit may wait until the receiving unit is expected to be present (Col 7 lines 50-57).

As per **claims 18,19,22,23**, claims rejected for the same reasons as rejection of claims 1 and 4.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 7,11** rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen et al. (5940431) as applied to claim 1 above, and further in view of Ziegler (6711151).

As per **claims 7,11**, Haartsen discloses applicant's claim 1, but Haartsen does not disclose that the window length (comprising either the page period or page train period) is defined as an 'integer power of two' number of slots.

Ziegler discloses a Bluetooth system where the scanning window in the paging process is an integer power of two number of slots (Col 10 lines 20-34) to be able to ensure that no time gaps occur between the scan windows. It would have been obvious to one of ordinary skill in the art at the time of this application to first implement the frequency hopping paging mode of Haartsen in a Bluetooth system, as it is a widely known and accepted standard, and to additionally define the page and scan windows as an integer power of two number of slots for the advantage of not allowing any time gaps within the windows.

5. **Claim 12** rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen et al. (5940431) as applied to claim 1 above, and further in view of Romans et al. (6587453).

As per **claim 12**, Haartsen discloses applicant's claim 1, but does not disclose the paging device skipping a random number of 'back-off' time points if no response is received from the receiving device.

Romans discloses a wireless network that may be ad-hoc (Col 2 lines 35-45). The network uses a random 'back-off' value where the transmitting unit waits a random number of slots in order to retransmit a message in order to solve the problem of simultaneous receiving units trying to communicate with the transmitting unit at the same timeslot (Col 4 lines 15-27). It would have been obvious to one of ordinary skill in the art at the time of this application that Haartsen's system is an ad-hoc network in which multiple receiving units may be trying to communicate with a paging unit, and that implementing a back-off procedure (for all communication functions, including paging) offers the advantage of preventing (or at least minimizing) collisions.

6. **Claim 13** rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen et al. (5940431) in view of Romans et al. (6587453) as applied to claims 1,12 above, and further in view of Raith (5404355).

As per **claim 13**, Haartsen in view of Romans discloses applicant's claims 1 and 12. However, they do not specify that after a threshold number of attempts, the periodic window of Haartsen is doubled.

Raith discloses a wireless network in which a superframe (window) is defined in a paging function. Romans further disclose a design tradeoff affected by the window size (superframe length) to increase the amount of page groups or conserve battery power (Col 14 lines 2-15). Raith further discloses that if a transmitter does not receive a

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response from a receiving unit, the transmitting unit may double the length of the superframe (by keeping the Fi value) (Col 16 lines 40-67). It would have been obvious to one of ordinary skill in the art at the time of this application that the window (superframe) could be doubled in order to reduce the chances that one unit will miss the paging (overhead information) (Col 16 lines 6-20) being sent by the other unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ  
February 8, 2005

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
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